

4, 9, 16, 25...

Form A

HW#60: Radicals Review

Geometry

TP: Due Date: Tuesday, February 4th, 2014

Name: _____

1) Simplify: $\sqrt{90}$

2) Simplify: $\sqrt{300m^3}$

$$\sqrt{300} \cdot \sqrt{mmmm}$$

$$\sqrt{\cdot} \cdot \sqrt{\cdot}$$

3) Simplify: $-\sqrt{125g^3h^2}$

Don't forget the negative!

4) Simplify: $5\sqrt{20} \cdot -6\sqrt{2}$

① multiply whole #s: $5 \cdot -6$

② multiply radicands: $\sqrt{20} \cdot \sqrt{2}$

③ SIMPLIFY!

5) Simplify: $\sqrt{18mr^2} \cdot 2\sqrt{mr}$

6) Simplify:

$$\boxed{\sqrt{7}} - 3\sqrt{5} - \boxed{2\sqrt{7}}$$

$$1\sqrt{7} - 2\sqrt{7} = (1-2)\sqrt{7} = -\sqrt{7}$$

$$-3\sqrt{5} = -3\sqrt{5}$$

$$\boxed{-\sqrt{7} - 3\sqrt{5}}$$

* Add/Subtract \nearrow whole #s of like radicands.

STAY READY.

7) Simplify:

$$\sqrt{8} - 4\sqrt{20}$$

$$\begin{aligned} &\sqrt{8} - 4 \cdot \sqrt{20} \\ &\sqrt{4} \cdot \sqrt{2} - 4 \cdot \sqrt{4} \cdot \sqrt{5} \\ &2\sqrt{2} - 4 \cdot 2\sqrt{5} \\ &2\sqrt{2} - 8\sqrt{5} \end{aligned}$$

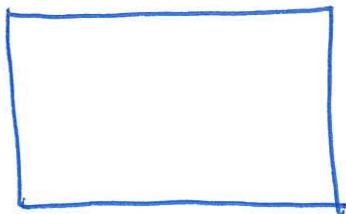
- ① Simplify each radical
② Combine "like terms"

8) Simplify:

YOU TRY!
 $-3\sqrt{18} - 3\sqrt{27}$

9) A rectangle has a width of $5\sqrt{2}$ and a length of $10\sqrt{3}$.

Draw the rectangle below, and answer the questions to the right:



a) What is the perimeter of the rectangle?

ADD! Combine "like" terms. Remember, add the whole #s that have the SAME radicand.

b) What is the area of the rectangle?

MULTIPLY! whole# • whole#
• radicand • radicand